CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.14/BTR/CEMENT/2014-15

Date: 04.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.
REFERENCE	:	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	a) Initial Setting Time	IS-4031 (Part -5)	135 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	26.50 %	-

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Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/W.No.14/BTR/SAND/2014-15 : 04.08.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of Work : Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014

Date of Testing : 04.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	98	4.90	4.90	95.1	90-100
2.36	222	11.10	16.00	84.0	75-100
1.18	456	22.80	38.80	61.2	55-90
600 Micron	423	21.15	59.95	40.1	35-59
300 Micron	498	24.90	84.85	15.2	8-30
150 Micron	229	11.45	96.30	3.7	0-10

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Job No.: CTCE/BBMP/W.No.14/BTR/AGG/2014-15 : 04.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of Work : Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014

Date of Testing : 04.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1015	3.98	3.98	96.02	95-100
20	16452	64.52	68.50	31.50	30-70
10	5145	20.18	88.67	11.33	10-35
4.75	2513	9.85	98.53	1.47	0-5

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Job No.: CTCE/BBMP/W.No.14/BTR/AGG/2014-15 : 04.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of Work : Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014

Date of Testing : 04.08.2014

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Tabel - 1

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	196	3.92	3.9	96.08	95-100
10	3132	62.64	66.6	33.44	25-55
4.75	1520	30.40	97.0	3.04	0-10

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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.14/BTR/CC Blocks/2014-15 05.08.2014

TEST REPORT ON CEMENT CONCRETE BLOCKS

Client : **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.

Agency : **Mr. B.T. Ravikumar,** Contractor, Bangalore.

Name of the Work : Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.

Reference : BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014

Size of Block : 400 mm x 200 mm x 200 mm

Cross Sectional Area : 80000 mm^2

Technical Reference : IS: 2185 (Part 1) - 2005

No. of Blocks Tested : 03

Sl.No.	Date of Sampling	Date of testing	Failure load (KN)	Compressive strength	Minimum Compressive Strength of Individual Units
			kN	N/mm^2	N/mm^2
1	03.08.2014	05.08.2014	262.3	3.28	
2	03.08.2014	05.08.2014	261.4	3.27	3.2
3	03.08.2014	05.08.2014	263.2	3.29	

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Job No.: CTCE/BBMP/W.No.14/BTR/CUBE/2014-15

18.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Agency	: **Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of the work	: Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.
Reference	: BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014
Sample ID	: Cement Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	21.08.2014	18.09.2014	8.163	352.3	15.66
2	21.08.2014	18.09.2014	8.358	364.5	16.20
3	21.08.2014	18.09.2014	8.346	389.7	17.32

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Job No.: CTCE/BBMP/W.No.14/BTR/Pre slab/2014-15

27.08.2014

PRE CAST SLAB(CORE) TEST REPORT

Name of Client	:	**Asst. Executive Engineer,** T. Dasarahalli Sub Division, BBMP, Bangalore.
Name of Agency	:	**Mr. B.T. Ravikumar,** Contractor, Bangalore.
Name of work	:	Improvements to Drain and Footpath 5th Main Bhuvaneshwari Nagara & 22nd Cross Pipe Line road Bhuvaneshwari Nagara in Bagalagunte Ward No.14, BBMP, Bangalore.
Referece	:	BBMP/DZ/AEE/TDSD/PR/2014-15 Dated: 01.08.2014
No.of Sample Tested	:	03
Date of Testing	:	27.08.2014
Techinical Reference	:	IS:516-1959 (Reaffirmed 2008), SP-24:1983.
Grade of Concrete	:	M_{15}

Sl. No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	82.00	0.415	2577.53	1.64	0.970	27.20	13.85	14.96	14.51	18.14
2	50.00	80.00	0.395	2514.65	1.60	0.960	25.65	13.06	14.11	13.54	16.93
3	50.00	81.00	0.403	2533.90	1.62	0.965	26.15	13.32	14.38	13.88	17.35

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